

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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JOSEPH AJALA and ABIGAIL AJALA, :
: _____
Plaintiffs, :
: 16-CV-2615 (VEC)
-against- :
: _____
W.M. BARR & COMPANY, INC. and HOME :
DEPOT U.S.A., INC., :
: _____
Defendants. :
----- X

VALERIE CAPRONI, United States District Judge:

Plaintiffs Joseph and Abigail Ajala, husband and wife, brought this action for personal injuries arising from Joseph's use of a paint-removal product manufactured by Defendant W.M. Barr & Co., Inc. ("W.M. Barr") and sold by Defendant Home Depot U.S.A., Inc. ("Home Depot"). Specifically, Plaintiffs allege that W.M. Barr's "Professional Strength Goof Off" ("PSGO" or "Goof Off") ignited when Joseph was using it to remove latex paint from a kitchen floor, burning Joseph. The Court previously granted summary judgment to Defendants on Plaintiffs' express-warranty claim but denied summary judgment on Plaintiffs' design-defect, implied-warranty, and loss-of-consortium claims. *See* Dkt. 97 ex. F. Now before the Court are the parties' cross-motions in limine to exclude in full or in part the opinions of each other's expert witnesses.¹

For the following reasons, Plaintiffs' motion to exclude the opinions of Defendants' fire investigator R. Thomas Long [Dkt. 86] is GRANTED IN PART and DENIED IN PART. Plaintiffs' motion to exclude some of the opinions of Defendants' chemist Timothy J. Myers

¹ The Court assumes the parties' familiarity with the facts, history, and procedural posture of the case.

[Dkt. 89] is DENIED. Defendants' motion to exclude the opinions of Plaintiffs' fire investigator Robert Malanga and Plaintiffs' chemist James E. Hanson [Dkt. 92] is GRANTED IN PART and DENIED IN PART.

DISCUSSION

Federal Rule of Evidence 702 governs the admissibility of expert testimony. It provides that a person "qualified as an expert by knowledge, skill, experience, training, or education" may offer opinion testimony so long as

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

While the party offering expert testimony bears the burden of establishing by a preponderance of the evidence that the testimony satisfies Rule 702, "the district court is the ultimate gatekeeper."

United States v. Williams, 506 F.3d 151, 160 (2d Cir. 2007) (citations and internal quotation marks omitted). Rule 702 tasks the trial judge with "ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993). This gatekeeping obligation "applies not only to testimony based on 'scientific' knowledge, but also to testimony based on 'technical' and 'other specialized' knowledge." *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999).

The threshold question for the Court is whether the "proffered expert testimony is relevant." *Amorgianos v. National R.R. Passenger Corp.*, 303 F.3d 256, 265 (2d Cir. 2002). If it

is, the Court must then determine “whether the proffered testimony has a sufficiently reliable foundation to permit it to be considered.” *Id.* (internal quotation marks omitted). The Supreme Court has laid down several factors pertinent to this inquiry, including “whether a theory or technique . . . can be (and has been) tested”; “whether the theory or technique has been subjected to peer review and publication”; whether uniform “standards controlling the technique’s operation” exist; and whether the theory or technique enjoys “general acceptance” within an identifiable relevant scientific or professional community. *Daubert*, 509 U.S. at 593-94. The Court’s ultimate objective is to “to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Kumho Tire Co.*, 526 U.S. at 152.

I. Motion to Exclude Opinions of Defendants’ Fire Investigator R. Thomas Long

The Court finds that the opinions of Defendants’ fire investigator, R. Thomas Long, regarding the cause of the Goof Off fire are admissible in part and inadmissible in part. Specifically, Long may opine at trial (1) that a discharge of static electricity could not have caused the Goof Off fire; (2) that a standing pilot light in the stove near which Joseph Ajala used the Goof Off is a possible cause of the fire; and (3) that because the stove in question is unavailable for examination, the cause of the fire is undetermined.

Long is forbidden, however, from testifying that such a pilot light is the *only* possible cause of the Goof Off fire. He is also prohibited from arguing, suggesting, or advocating that the jury infer that Plaintiffs or their counsel are responsible for the absence of the stove near which Joseph Ajala used the Goof Off. In other words, although Long may refer to the stove’s absence

in explaining why he cannot rule out the stove as a cause of the Goof Off fire, he is not permitted to opine on whether Plaintiffs or their counsel are culpable for that absence.²

Before discussing each of these holdings, the Court notes, as a threshold matter, that Long's opinions regarding the cause of the fire are generally relevant and, if admitted, would “help the trier of fact understand the evidence or . . . determine a fact in issue.” Fed. R. Evid. 702(a); *see also Amorgianos*, 303 F.3d at 265 (directing district courts to assess whether “proffered expert testimony is relevant”). Whether static electricity, a stove pilot light, or some other phenomenon caused the Goof Off to ignite is both the central question of this lawsuit and one not easily resolved by lay persons without an expert’s guidance. To be clear, however, this relevance finding does not extend to *every* opinion Long has offered in his report and deposition; the Court will, where appropriate, identify opinions it finds to be irrelevant or unhelpful (and therefore inadmissible) under Rule 702.

A. Long’s Criticisms of Plaintiffs’ Static-Electricity Theory

Although they style their motion as one to exclude Long’s testimony altogether, Plaintiffs have *not* challenged the admissibility of Long’s opinion that a discharge of static electricity could not have caused the Goof Off fire. Nor does it appear to the Court that his opinion is unreliable under *Daubert* so as to trigger exclusion *sua sponte*. Applying principles of static-electricity formation and discharge described in, among other sources, the National Fire Protection Association’s (“NFPA”) 921 Guide for Fire and Explosion Investigations, Long analyzed at length and in detail Joseph Ajala’s narrative of the Goof Off fire and his activities leading up to it, along with pertinent weather data and scientific literature regarding the

² As will be discussed, the Court previously found that Plaintiffs are responsible for the absence of the stove and ruled that the jury will be charged “that it may draw an adverse inference against the plaintiffs because of their failure to preserve the stove for examination.” Dkt. 97 ex. F at 3-5.

conductivity of chemicals like PSGO. *See* Dkt. 88 ex. F 25-29. Plaintiffs do not offer—and the Court does not perceive—any reason to exclude Long’s opinion regarding the viability of Plaintiffs’ static-electricity theory under Rule 702. He will therefore be allowed to offer that opinion at trial.³

B. Long’s Opinion That a Standing Pilot Light in Plaintiffs’ Stove Possibly Caused the Fire

Plaintiffs challenge Long’s opinion that a standing pilot light in the stove near which Joseph Ajala used the Goof Off could possibly have caused the Goof Off to ignite, arguing that it fails the *Daubert* reliability test because “Long provides no analysis or supporting data as to how an ignition via pilot light would have occurred, and whether it is consistent with the incident that took place.” Dkt. 87 at 7-10. Specifically, Plaintiffs argue that in the absence of a mathematical calculation or experimental data showing that PSGO vapors could feasibly have departed the PSGO can, “reached the ground, spread out along the floor and then slowly rise[n] back to the height of the pilot lights, within the two or three seconds between the time Joseph began pouring the PSGO and the ignition of the PSGO,” Long cannot reliably opine whether a standing pilot light may have caused the fire. *Id.* The Court disagrees.

The Court notes, first of all, that Plaintiffs do not question Long’s qualification to testify as an expert in fire investigation—or that his expertise encompasses inquiry into the expected behavior of flammable vapors and their interaction with open flames. *See, e.g.,* National Fire

³ “The NFPA 921 sets forth professional standards for fire and explosion investigations” *Royal Ins. Co. of Am. v. Joseph Daniel Constr., Inc.*, 208 F. Supp. 2d 423, 426-27 (S.D.N.Y. 2002). The Court has no trouble finding that the NFPA 921 guide supplies a reliable methodology for carrying out fire cause-and-origin investigations. The authorities approving a fire investigator’s reliance on the guide for Rule 702 purposes are legion. *See, e.g., United Fire & Cas. Co. v. Whirlpool Corp.*, 704 F.3d 1338, 1341-42 (11th Cir. 2013) (describing NFPA 921 manual as a “a peer reviewed fire investigation guide that is the industry standard for fire investigation”); *United States v. Hebshie*, 754 F. Supp. 2d 89, 109 n.39 (D. Mass. 2010) (“NFPA 921 is promulgated by the Technical Committee of the National Fire Protection Association (‘NFPA’), the largest fire protection organization in the world and is widely accepted as the standard guide in the field of fire investigation.”).

Protection Association, NFPA 921: Guide for Fire and Explosion Investigations §§ 19.3.1.5 (2017 ed.) (hereafter, “2017 NFPA 921”) (“Gases, vapors, and combustible dusts can be the initial fuel and can cause confusion about the location of the point of origin, because the point of ignition can be some distance away from where sustained fire starts . . .”); *see also* Dkt. 88 ex. F app. B (Long résumé).

Second, Long’s theory is reliably grounded in technical knowledge within his expertise as a fire investigator, even if his assumptions, premises, and conclusions are subject to reasonable dispute by Plaintiffs and their experts. At deposition, Long opined that any PSGO vapors would have left the Goof Off can upon opening, traveled towards the kitchen floor—the vapors being denser than air because of PSGO’s chemical makeup—and then, due to turbulence resulting from the vapors’ descent, “spread out and then slightly start[ed] to rise up, depending on the temperature in the room,” in a manner akin to water “filling a bathtub upside down.” Dkt. 88 ex. G 254-55. Contrary to Plaintiffs’ contention, there is nothing inherently dubious, let alone unreliable, about this explanation of how the PSGO vapors could have behaved prior to their ignition. Nor does the lack of a calculation or experiment proving the feasibility of the theory render it unreliable under Rule 702: while such additional computational or experimental support may have bolstered Long’s theory both on its merits and under *Daubert*, Plaintiffs have not identified any more precise, generally accepted methods Long could have applied that would have, in their view, carried his pilot-light opinion across the line of Rule 702 reliability.

Tellingly, Plaintiffs’ own fire investigator, Joseph Malanga, also did not undertake any calculations or experiments of his own before declaring that it was impossible for any PSGO vapors to have reached and been ignited by a hypothetical pilot light in Plaintiffs’ stove. *See* Dkt. 93 ex. 1 (Malanga report) at 19 (“Accordingly, in addition to the height difference between

any even potential source of ignition and the low lying flammable vapors as well as the degree of enclosure, such appliance would not be considered as a source of ignition.”). This underscores the Court’s conclusion that Long’s pilot-light opinion, even if shaky in Plaintiff’s view, is not the result of unreliable methods under Rule 702. *See Shuck v. CNH Am., LLC*, 498 F.3d 868, 874 (8th Cir. 2007) (“When a litigant clearly believes a certain methodology is acceptable as shown by his or her own expert’s reliance on that methodology, it is disingenuous to challenge an opponent’s use of that methodology.”). Plaintiffs remain free, of course, to challenge Long’s opinion and the methods underlying it through “[v]igorous cross-examination” and the “presentation of contrary evidence.”⁴ *Daubert*, 509 U.S. at 596.

The Court also rejects Plaintiffs’ argument that Long’s opinion is unreliable under *Daubert* because it assumes that the stove at issue had a standing pilot light—an assumption, Plaintiffs assert, that is “counter to the weight of the evidence.” *See* Dkt. 87 at 9; *see also id.* at 11 (“In fact, . . . the available evidence demonstrates that the stove in question did not have a pilot light.”). This Court has already held that in light of the stove’s curious disappearance in the days after the Goof Off fire, Defendants are entitled to a spoliation instruction at trial. *See* Dkt. 97 ex. F at 3-5. That instruction will necessarily permit the jury to conclude that the stove, in fact, had a standing pilot light and, by extension, that the pilot light possibly ignited the PSGO. If the *jury* is authorized to so conclude, then it cannot be that Defendants’ fire investigator Long is not. *See also* Advisory Committee Notes to the 2000 Amendments, Fed. R. Evid. 702 (“When facts are in dispute, experts sometimes reach different conclusions based on competing versions

⁴ Although Long need not have supplied a mathematical calculation or experimental data to reliably conclude that a standing pilot light could have caused the fire, his opinion and his understanding of vapor behavior underlying it are not so commonsensical as to be within the ken of laypersons. *See* Fed. R. Evid. 702(a) (requiring that expert’s knowledge “help the trier of fact to understand the evidence or to determine a fact in issue”). The Court gathers that Plaintiffs agree inasmuch as they have sought to introduce testimony by their own fire investigator opining on exactly the same topic. *See* Dkt. 93 ex. 1 (Malanga report) at 18-19.

of the facts. The emphasis in the amendment on ‘sufficient facts or data’ is not intended to authorize a trial court to exclude an expert’s testimony on the ground that the court believes one version of the facts and not the other.”).

In sum, the Court finds that Long’s opinion that a standing pilot light is a possible cause of the Goof Off fire is the product of reliable methods reliably applied. It is therefore admissible under Rule 702.

C. Long’s Assertions That a Standing Pilot Light in Plaintiffs’ Stove Is the *Only* Possible Cause of the Fire

On the other hand, the Court agrees with Plaintiffs that Long may not opine that “the *only* possible cause of the fire is the ignition of PSGO vapors via gas stove pilot light(s).” Dkt. 88 ex. F at 32 (emphasis added). Saying that a stove pilot light is the *only* possible cause of the fire is tantamount to saying that a stove pilot light *was* the cause of the fire—an opinion that the NFPA manual Long purported to follow forbids him from offering.

The controversy over Long’s phraseology springs from tension in his investigation report. On the one hand, Long’s report asserts twice that, in his view, the fire’s “ignition source has not been conclusively identified” and therefore “[t]he cause of the fire is undetermined.” Dkt. 88 ex. F at vi; *see also id.* at 32. This opinion is consistent with the NFPA fire-investigation manual, which directs a fire investigator to classify a fire’s cause as “undetermined” whenever the investigator’s causation hypothesis has been neither scientifically disproven nor demonstrated to be more likely than not true—in other words, whenever a fire-causation theory is suspected or possible but not shown to be probable. *See* 2017 NFPA 921 § 19.7.4 (“If the level of certainty of the opinion is only ‘possible’ or ‘suspected,’ the fire cause is unresolved and should be classified as ‘undetermined.’”); *see also id.* § 4.5.1 (denominating a hypothesis as “possible” when it “can be demonstrated to be feasible but cannot be declared probable,” and denominating a hypothesis

as “probable” when it is “more likely true than not”); *id.* § 4.5.2 (“Only when the level of certainty is considered ‘probable’ should an opinion be expressed with reasonable certainty.”). In Long’s view, although it is *possible* that Joseph Ajala was burned because a stove pilot light ignited vapors from the PSGO, Long’s inability to inspect the stove and confirm that it did, in fact, have a standing pilot light precludes him from opining that a pilot light *probably* caused the fire. *See* Dkt. 88 ex. F at 32 (“Given that Mr. Ajala spoliated the evidence by disposing of the stove rendering the confirmation of the stove ignitor type impossible based on the evidence reviewed to date, the cause of the fire is undetermined. The fire is classified as undetermined.”). In sum, according to Long, classifying the pilot-light theory as anything more than “possible” would violate the methodology laid out in the NFPA.⁵

That is in tension with Long’s statement that “[b]ased on the available data the *only possible cause* of the fire is the ignition of PSGO vapors via gas stove pilot light(s).” Dkt. 88 ex. F at 32 (emphasis added). The Court appreciates that in the abstract there may be a Jesuitical distinction between, on the one hand, asserting that X *caused* Y and, on the other hand, asserting that X is the *only possible cause* of Y. But in this case, where everyone agrees that *something* caused the fire, the latter statement is functionally equivalent to the former: if something caused the PSGO to ignite, and a standing pilot light is the only possible candidate to be that something, then a standing pilot light *must* have caused the PSGO to ignite. But if the NFPA prohibits Long

⁵ As an aside, the Court refuses Plaintiffs’ invitation to exclude as irrelevant Long’s opinion that the fire’s cause is “undetermined.” *See* Dkt. 87 at 6. Long’s conclusion that the cause of the fire must be classified as “undetermined” under NFPA principles because no “probable” cause for it can properly be identified, *see* 2017 NFPA 921 § 19.7.4 (“If the level of certainty of the opinion is only ‘possible’ or ‘suspected,’ the fire cause is unresolved and should be classified as ‘undetermined.’”), if believed, tends to undercut Malanga’s conclusion that a discharge of static electricity definitely ignited the PSGO. At the end of the day, Long’s conclusion that the cause of the fire is undetermined has little independent persuasive force. If the jury is persuaded by Plaintiffs’ expert that a discharge of static electricity caused the fire, then it will reject Long’s opinion that the cause of the fire is undetermined; on the other hand, if the jury agrees with Long that a discharge of static electricity is not a credible explanation for the fire, then it will also likely accept his opinion that the cause of the fire is undetermined (although possibly caused by a standing pilot light).

from opining that a pilot light caused the fire, then it must also prohibit him from offering the functionally equivalent opinion that a pilot light is the “only possible cause” of the fire. Because Long’s opinion that a pilot light is the only possible cause of the fire is irreconcilable with Long’s chosen fire-investigation methodology, that opinion is inadmissible under Rule 702. *See, e.g., Amorgianos*, 303 F.3d at 268 (affirming rejection of expert’s opinion under Rule 702 where expert “failed to apply his own methodology reliably”); *Russell v. Whirlpool Corp.*, 702 F.3d 450, 455 (8th Cir. 2012) (“Our NFPA 921 cases stand for the simple proposition [that] an expert who purports to follow NFPA 921 must apply its contents reliably.”).

Thus, Long is prohibited from testifying that the pilot light is the only possible cause of the Goof Off fire.⁶

D. Long’s Commentary About Spoliation

Finally, the Court agrees with Plaintiffs that Long may not comment on whether Plaintiffs or their counsel are responsible for the stove in question not being available for examination. “For an expert’s testimony to be admissible under [Rule 702], . . . it must be directed to matters within the witness’ scientific, technical, or specialized knowledge and not to lay matters which a jury is capable of understanding and deciding without the expert’s help.” *Andrews v. Metro N. Commuter R.R. Co.*, 882 F.2d 705, 708 (2d Cir. 1989). This principle forbids expert testimony that “supplant[s] the role of counsel in making argument at trial, and the role of the jury in interpreting the evidence,” including by providing “factual narratives and interpretations of conduct or views as to the motivation of parties.” *In re Rezulin Products Liability Litig.*, 309 F. Supp. 2d 531, 541 (S.D.N.Y. 2004).

⁶ Because the Court bars Long from testifying that the pilot light is the only possible cause of the fire, the Court need not engage with Plaintiffs’ contentions that the opinion also violates the NFPA because it (1) “present[s] [a cause] he cannot attest to with any reasonable certainty as ‘probable’ as being the cause of the ignition,” Dkt. 87 at 7, and (2) impermissibly engages in “negative corpus,” *id.* at 10-11.

In his fire-investigation report, however, Long attempted to do just that. In his report's executive summary, for instance, Long "opined" that "Mr. Ajala spoliated the evidence by . . . having the stove installed at the time of the incident removed from the property, with its current whereabouts being unknown." Dkt. 88 ex. F at vii. "To date," he continued, "the plaintiff has not produced the stove or any specific physical or documentary evidence regarding the stove and its ignition system. As such, I am unable to confirm the specific ignition system on the stove at the time of the incident." *Id.* Long's report is riddled with other gratuitous allusions to Plaintiffs' role in the stove's absence, along with insinuations that Joseph Ajala has been inconsistent in his statements and testimony and that adverse inferences should be drawn therefrom.⁷

These statements are not grounded in scientific, technical, or other specialized knowledge and will not help the jury understand the evidence or determine a fact in issue. Accordingly, they are inadmissible under Rule 702. As the Court has ruled previously, Defendants are entitled to a spoliation instruction; it will be "a matter for the jury to decide, based on the strength of the evidence presented," whether Plaintiffs in fact are responsible for the absence of the stove; whether the stove had a standing pilot light; and, if so, whether that pilot light caused the fire.

Byrnies v. Town of Cromwell, 243 F.3d 93, 110 (2d Cir. 2001), superseded on other grounds by Fed. R. Civ. P. 37(e), as recognized in *Moy v. Perez*, 712 F. App'x 38, 42 (2d Cir. 2017). Long's

⁷ See Dkt. 88 ex. F at 29 ("Mr. Ajala testified that the gas stove in the kitchen at the time of the fire was not equipped with standing pilots. However, the first recorded statement from Mr. Ajala after the fire indicated that the stove played a role in the fire, consistent with a pilot light igniting PSGO vapors and inconsistent with Mr. Ajala's deposition testimony regarding the ignitors. Mr. Ajala disposed of the stove and to date, insufficient information regarding the make or model of the stove or its ignition components has been produced in order to rule out the presence of a standing pilot light. Mr. Ajala spoliated the evidence in this matter as he did not retain the stove, a potential ignition source for the fire. No physical or documentary evidence has been produced to support Mr. Ajala's testimony that the stove did not utilize standing pilot flames for the burners."); *id.* at 32 ("Given that Mr. Ajala spoliated the evidence by disposing of the stove rendering the confirmation of the stove ignitor type impossible based on the evidence reviewed to date, the cause of the fire is undetermined.").

expert testimony is relevant only to the second and third of these inquiries. His commentary on the first is both divorced from his scientific, technical, or other specialized knowledge and “supplant[s] the role of counsel in making argument at trial, and the role of the jury in interpreting the evidence.” *In re Rezulin*, 309 F. Supp. 2d at 541. That commentary is therefore inadmissible under Rule 702.⁸

To be clear, Long will be free to refer to the stove’s absence to explain why, to borrow his phrasing, “confirmation of the stove ignitor type [is] impossible.” Dkt. 88 ex. F at 32. He may also explain why, in his view, the “specific physical or documentary evidence” available “regarding the stove and its ignition system”—such as the purchase receipt Plaintiffs have provided—is inconclusive on the subject. *Id.* at vii. The *fact* of the stove’s absence and the ambiguity of the remaining physical or documentary evidence regarding its mechanical features bear directly on Long’s ability to offer a reliable opinion about the origins of the fire. The reasons for the stove’s absence, however, and Plaintiffs’ role in that absence, do not.

II. Motion to Exclude Certain Opinions of Defendants’ Chemist Timothy J. Myers

Turning to Plaintiffs’ other *Daubert* motion, the Court finds that the opinions of Defendants’ chemist Timothy J. Myers regarding the minimum ignition energy (“MIE”) of PSGO vapors and their susceptibility to ignition by static-electricity discharge are admissible under Rule 702.

The Court finds Myers’s opinions regarding PSGO’s MIE relevant and helpful to the jury in understanding the evidence and determining facts in issue. *See Fed. R. Evid. 702(a); Amorgianos*, 303 F.3d at 265. Whether static electricity did or did not cause the fire is both a

⁸ To the extent Plaintiffs argue that Long’s spoliation commentary is inadmissible under Fed. R. Evid. 403—Plaintiffs’ briefing is ambiguous on that point, *see* Dkt. 99 at 5-6—resolving that argument is unnecessary because the Court excludes the commentary under Rule 702.

central issue in this case and one not easily resolved by lay persons without expert guidance.

The Court is satisfied that Myers possesses the knowledge, skill, experience, training, and education necessary to offer expert testimony on the MIE of PSGO vapors and their susceptibility to ignition by the discharge of static electricity—a finding Plaintiffs do not challenge. *See* Dkt. 91 ex. G app. 1 (Myers résumé).

Plaintiffs do, however, assert that Myers's methodology for determining the MIE of Goof Off vapors (an essential step in determining whether a static-electricity discharge could have ignited the vapors) was unreliable because (1) Myers improperly adapted a machine designed for testing the MIE of dust particles to test the MIE of PSGO vapors, and (2) his tests failed to recreate the ambient temperature and humidity level of the kitchen where the Goof Off fire occurred. *See* Dkt. 90 at 3. The Court rejects both of these arguments.

A. Myers's Adaptation of the MIKE3 Apparatus to Test the MIE of Goof Off Vapors

Myers's adaptation of a “MIKE3” machine, a device ordinarily used to test the minimum energy required to ignite dust particles, to determine the minimum energy required to ignite PSGO vapors was not methodologically unreliable for Rule 702 purposes, even if Plaintiffs can reasonably dispute the propriety and validity of certain elements of Myers's testing procedures. At deposition, when asked why he used the MIKE3 machine to test PSGO vapors, Myers explained that using the MIKE3 apparatus to determine the MIE of Goof Off vapors made scientific sense because combustible dusts and vapors behave similarly and because PSGO vapors in particular have “a minimum ignition energy more consistent with the values that you typically measure for a dust than for what you would measure for a vapor,” meaning that the MIKE3 machine could deliver the “correct range of [electrical] energies” necessary to ignite the vapors and measure their MIE. Dkt. 95 ex. 1 (Myers deposition) at 182-85. He also opined that

his method of delivering PSGO vapors to the MIKE3 machine’s spark emitter—by soaking rags in PSGO and then placing them in a jar positioned below the emitters—was a sound approximation of the usual MIKE3 procedure of placing dust in a vessel below the emitters and then using air pressure to blow the dust upward in between them. As Myers explained, “the rag . . . serve[d] as a wick” carrying the Goof Off from the bottom of the jar toward the top, where vapors would “tend to diffuse and disperse” over time until “eventually you reach a concentration that’s ignitable, and then the [Goof Off] ignites” when sparked with sufficient energy. *Id.* at 189, 198-99. As to why he introduced a rag into the testing procedure, Myers opined that although “[g]enerally you wouldn’t use a rag in this test,” adding a rag was appropriate “to make [the experiment] more representative of the incident” in question, “where . . . a spark ignited vapors as liquid was being poured onto the rag.” *Id.* at 205. “A standardized test isn’t going to talk about having a rag of PSGO and measuring the [MIE],” Myers added, so “[i]n an attempt to be more representative of the actual incident, that’s how we performed the test.” *Id.*

There is nothing inherently unreliable about Myers’s adaptation of the MIKE3 apparatus, even if Plaintiffs disagree with it. Indeed, Plaintiffs do not question the fundamental premise underlying Myers’s method of adapting the MIKE3 machine: that a chemical’s MIE, including PSGO’s, can reliably be determined by exposing it to electrical sparks of differing intensities over time and observing what spark intensities are capable of igniting the substance. That is essentially what Myers did using the MIKE3 machine. His “slight modification of an otherwise reliable method [does] not render [his] opinion[s] *per se* inadmissible.” *Amorgianos*, 303 F.3d at 267. Nor is the lack of a particular published scientific study or passage in the MIKE3 operating manual blessing Myers’s approach in this case dispositive. *See Dkt. 95 ex. 1* (Myers deposition)

at 201-03 (“I’m familiar with minimum ignition energy test methods, so [this testing procedure] was based on my familiarity with those methods.”); *see also Amorgianos*, 303 F.3d at 266-67 (“This is not to suggest that an expert must back his or her opinion with published studies that unequivocally support his or her conclusions. . . . Where an expert otherwise reliably utilizes scientific methods to reach a conclusion, lack of textual support may go to the weight, not the admissibility of the expert’s testimony. . . . A contrary requirement would effectively resurrect a *Frye*-like bright-line standard, not by requiring that a methodology be ‘generally accepted,’ but by excluding expert testimony not backed by published (and presumably peer-reviewed) studies.” (citations and internal quotation marks omitted)).

Plaintiffs’ objections to Myers’s adaptation of the MIKE3 apparatus go to the weight of Myers’ opinions but do not render them inadmissible. On cross-examination, Plaintiffs are free to ask Myers whether a MIKE3 apparatus can ever properly be used accurately to measure a vapor’s MIE; whether placing the PSGO-soaked rags into a jar located underneath the MIKE3’s spark emitters rendered Myers’s MIE tests inaccurate; whether the shape of that jar could have meaningfully interfered with the diffusion of vapors upward toward the MIKE3’s spark emitters; whether failing to record the amount of PSGO poured onto the rags could have affected the validity of the experiment’s results; and whether Myers’s delegation of the performance of the MIKE3 tests to his associate invalidated his findings.⁹ The Court finds that, on the whole, these purported flaws in Myers’s methodology do not render the methodology unreliable, even if Plaintiffs have arguments that might lead the jury to reject his conclusions. These purported

⁹ To the extent Plaintiffs mean to suggest that Myers’s delegation of the MIKE3 testing to his associate somehow has an impact on the reliability of his methods or the validity or accuracy of his results, *see Dkt. 90 at 6; Dkt. 100 at 6*, they have identified no authority for the proposition that Myers could not base his opinion on data gathered by an assistant. That is not surprising in light of Fed. R. Evid. 703’s instruction that an “expert may base an opinion on facts or data in the case that the expert has been made aware of. . . .”

flaws are, therefore, best addressed through “[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof,” *Amorgianos*, 303 F.3d at 267 (quoting *Daubert*, 509 U.S. at 596), rather than through exclusion of Myers’s MIE opinions altogether.

B. Temperature and Humidity of Myers’s MIE Tests

For similar reasons, the Court rejects Plaintiffs’ argument that Myers’s MIE testing was unreliable because it failed to recreate the temperature and humidity of the kitchen in which the Goof Off was used. Myers admitted at deposition that he initially conducted his MIKE3 tests at an ambient temperature of 72.5 degrees Fahrenheit, which he conceded is lower than the eighty-one-degree temperature at which xylene, one of PSGO’s primary components, will produce sufficient vapors to ignite. *See* Dkt. 91 ex. D at 175-79. But he later submitted a supplemental report that accounted for the high temperature of Plaintiffs’ kitchen at the time of the fire by conducting the MIKE3 test on PSGO heated to ninety degree Fahrenheit, *see* Dkt. 95 ex. 2 at 5-6—a fact Plaintiffs’ brief in support of their motion in limine fails to mention.¹⁰ Regardless whether Myers’s use of room-temperature PSGO in his first round of testing invalidated that round’s results, his use of ninety-degree PSGO in his supplemental testing resolves Plaintiffs’ argument that the PSGO’s temperature rendered Myers’s experimental methodology unreliable. On cross-examination, Plaintiffs remain free to press Myers about their remaining objections on this point that they cursorily raise in their reply brief—specifically, “when and how the MIKE3 or PSGO samples were heated, how their temperatures were confirmed, what the temperature of the testing room itself was during testing, and what steps were taken to ensure the MIKE3 or PSGO remained at the appropriate temperature during the testing itself,” Dkt. 100 at 5-6. While

¹⁰ As it happens, Myers’s MIE findings did not meaningfully change between the two rounds of testing. *See* Dkt. 95 ex. 2 at 5-6.

Plaintiffs' concerns may undercut Myers's conclusions about the MIE of Goof Off vapors and whether static electricity could have ignited them, they are not grounds for excluding his opinion altogether under Rule 702.¹¹

The same ruling extends to Plaintiffs' objection that Myers's opinions are inadmissible because he conducted the MIKE3 tests at an ambient humidity of 53.4%, rather than the 39% to 45% humidity that apparently obtained in Plaintiffs' kitchen during the fire. *See* Dkt. 90 at 10. To the extent this difference could have meaningfully affected Myers's MIE results—not even Plaintiffs have attempted to explain air humidity's impact on the MIE of PSGO or similar chemicals, *see id.*—the Court is unpersuaded that this purported flaw is “large enough that [Myers] lacks good grounds for his . . . conclusions.” *Amorgianos*, 303 F.3d at 267 (internal quotation marks omitted).

In sum, Myers may offer his opinions regarding the MIE of PSGO vapors and whether a discharge of static electricity could have ignited the Goof Off vapors in Plaintiffs' kitchen.¹²

III. Motion to Exclude Opinions of Plaintiffs' Fire Investigator Robert Malanga

Turning next to Defendants' motion to exclude in full the opinions of Plaintiffs' fire investigator, Joseph Malanga, the Court finds that Malanga's opinions regarding the cause of the fire are admissible in part and inadmissible in part. Specifically, Malanga may opine at trial (1) that a discharge of static electricity caused the fire, and (2) that a standing pilot light in the stove could not have caused the fire. Malanga is forbidden, however, from opining as to the

¹¹ Because Myers's supplemental testing accounted for the temperature of the PSGO, the Court need not address Plaintiffs' argument that *Amorgianos* requires the Court to exclude Myers's MIE findings because he failed to account for temperature. *See Amorgianos*, 303 F.3d at 268-69 (affirming, under abuse-of-discretion standard, exclusion of expert opinion regarding concentration of xylene vapors where expert failed to account for xylene's temperature, as expert's own methodology required).

¹² Myers also conducted experiments regarding Goof Off's effectiveness as a paint remover, but Plaintiffs do not seek to exclude Myers's opinions on that topic, and the Court sees no reason to exclude them *sue sponte*.

design of (1) the label on the PSGO can Joseph Ajala used or Defendants' safety data sheets, or (2) the PSGO can itself.

Before explaining these holdings, the Court finds—with one exception to be noted below—that Malanga's opinions regarding the fire's cause are generally relevant and would be helpful to the jury in understanding the evidence and determining facts in issue. Whether static electricity, a standing pilot light, or some other cause ignited the PSGO will be a critical issue at trial, and one not easily resolved by lay jurors without expert testimony. And, as it was with Defendants' fire investigator Long, the Court is satisfied that Malanga possesses the knowledge, skill, experience, training, and education necessary to offer expert testimony on the cause of the fire—a finding Defendants do not contest. *See* Dkt. 97 ex. H (Malanga résumé).

A. Malanga's Opinions Regarding the Design of the PSGO Can Label and Safety Data Sheets

Malanga's opinions regarding Defendant W.M. Barr's design of the PSGO can label and safety data sheets are irrelevant.¹³ Those opinions were relevant, if at all, only to Plaintiffs' failure-to-warn claim, which Plaintiffs withdrew in their answer to Defendants' summary-judgment motion, *see* Dkt. 65 at 24, and which this Court dismissed in its ruling on that motion, *see* Dkt. 97 ex. F at 2-3. Plaintiffs, for their part, do not contest Defendants' argument on this point. Malanga's opinions regarding the Goof Off's label and safety data sheets are therefore excluded.¹⁴

B. Malanga's Opinions Regarding the Design of the PSGO Can and Its Impact on the Fire

¹³ A "safety data sheet" provides handlers and users of a chemical with information regarding its identity and composition; any toxicological, ecological, or other hazards it may pose; measures for safely storing, transporting, and using the chemical; first-aid techniques should the chemical cause injury; and other pertinent information. *See* 29 C.F.R. § 1910.1200(g); *see also* Dkt. 97 ex. N (PSGO safety data sheet).

¹⁴ Because the Court excludes these opinions, it need not resolve Defendants' arguments that Malanga lacks the qualifications to offer them or that they constitute improper legal opinion. *See* Dkt. 93 at 4 & n.5.

Malanga’s opinion that the design of the PSGO container possibly contributed to the Goof Off fire is inadmissible under Rule 702. In his report, Malanga identified two design features of the PSGO can that, in his view, contributed to the fire: first, the pour opening’s lack of a flow-restrictive device, and second, the opening’s lack of a pressure-relieving nozzle. *See* Dkt. 93 ex. 1 at 23. An “improved nozzle type and configuration,” he opined, would have prevented the fire. *Id.* at 24. The Court agrees with Defendants that Malanga’s theory is fatally “underdeveloped” with respect to both features. Dkt. 93 at 5-6.

Regarding the lack of a flow-restrictive device, neither Malanga’s report nor his deposition testimony provided any explanation whatsoever for how the absence of such an apparatus contributed, or possibly could have contributed, to the fire. Malanga’s report says only that the can lacked “any restrictive nozzle to limit the amount of liquid that may be dispensed from the container.” Dkt. 93 ex. 1 at 23. But it fails to link this observation to the fire’s origins—the sole issue to which Malanga’s testimony is relevant. Plaintiffs themselves do no better, arguing only that “Malanga, based on his experience, is able to . . . opine” that “the lack of any restrictive nozzle to limit the amount of liquid dispensed from the can” somehow “contributed to the release of flammable Goof Off Professional vapors.” Dkt. 96 at 14-15. In the absence of *any* theory, let alone a reliably grounded one, for how the lack of a flow restrictor could have contributed to the fire, Malanga’s observation about the absence of such a restrictor is nothing more than an irrelevant distraction. It is therefore inadmissible at *Daubert*’s first step. *See Amorgianos*, 303 F.3d at 265.

Although a closer question, the Court excludes on similar grounds Malanga’s opinion that the absence of a pressure-relieving valve on the can contributed to the fire. Malanga’s report is somewhat more detailed on this point, asserting that “[h]igh ambient temperatures on the day

and time of the Incident would have resulted in a higher vaporization rate” of the PSGO, which “likely” caused a “pressure buil[d] up inside the container prior to opening, which would have resulted in a release of flammable vapors” just rich enough to be ignited by a static-electricity discharge. Dkt. 93 ex. 1 at 23. But Malanga’s report and deposition testimony once again failed to offer *any* reason to conclude that the presence of a pressure-relieving device would have prevented the danger he identified. Indeed, neither his report nor deposition testimony provides any details as to what kind of “pressure relieving device,” *id.*, Malanga supposes the PSGO can should have had, how it would have functioned, or how it would have prevented an ignitable vapor cloud from developing in the moments before Joseph Ajala was burned. Plaintiffs’ brief in support of Malanga’s testimony is similarly vague and conclusory. *See* Dkt. 96 at 14 (saying only that Malanga “was able to determine that because the can and nozzle lack any pressure relieving device, on the 90 degree day on which the accident occurred, pressure built up in the can,” which “contributed to the release of flammable Goof Off Professional vapors.”). In the absence of these essential details, this part of Malanga’s theory is irrelevant and unhelpful.

Therefore, Malanga’s opinions regarding the PSGO can’s design, along with his conclusion that an “improved nozzle type and configuration” would have prevented the fire, Dkt. 93 ex. 1 at 24, are excluded.¹⁵

C. Malanga’s Commitment to Following the NFPA 921 Fire Investigation Manual

The Court rejects Defendants’ argument that Malanga’s opinions regarding the cause of the Goof Off fire are inadmissible under Rule 702 because his investigation “did not comply with the NFPA methodology.” Dkt. 93 at 9. Implicit in this argument is an assertion that the

¹⁵ Because it excludes Malanga’s opinions regarding the PSGO can’s design on relevance grounds, the Court need not resolve Defendants’ argument that those opinions are speculative because they are unsupported by “facts or data which would allow for the conclusion that the lack” of flow-restrictive and pressure-relieving features actually “play[ed] a role” in the fire, Dkt. 93 at 5-6.

methodology laid out in the NFPA 921 manual is the *only* reliable fire-investigation methodology for *Daubert* purposes—an extraordinarily broad proposition this Court is unwilling to endorse. *See, e.g., Schlesinger v. United States*, 898 F. Supp. 2d 489, 504 (E.D.N.Y. 2012) (collecting cases) (“[T]he Court is aware of no court in this circuit that has refused to admit expert testimony in an arson case because his or her opinion was based on a methodology other than that prescribed in NFPA 921.”). And, in any event, the Court is not persuaded that Malanga did, in fact, disavow compliance with the NFPA to the extent Defendants suggest. *See* Dkt. 93 at 10 (“His testimony should be precluded based on his denials and disclaimers alone.”); *see also id.* ex. 2 (Malanga deposition) at 24-26 (“[M]y involvement occurred later on. So to the best of my ability, I follow NFPA 921, but because of that time difference, some things are not able to be done. . . . I wouldn’t say it’s a controlling document. It’s a document that I follow.”).

D. Delay of Malanga’s Investigation and Changes to the Fire Scene

The Court similarly rejects Defendants’ contention that Malanga’s fire-causation opinions are inadmissible under Rule 702 because Malanga did not visit the site of the fire until two years later. To begin with, contrary to Defendants’ suggestion, the NFPA 921 manual nowhere precludes an expert from opining on the cause of a fire merely because his investigation was less than immediate, even though the manual does express a generalized preference that investigation and evidence collection begin as soon as possible after an incident. *See, e.g.*, 2017 NFPA 921 § 6.2.17.9 (“Victims who survive the fire, but suffer injuries, should . . . be documented as soon as possible.”). Moreover, Defendants offer no specific reason to believe that the two-year gap between the fire and Malanga’s investigation meaningfully affected the manner in which the investigation was performed, let alone a reason to believe that any impact was sufficiently deleterious to render the investigation methodologically unreliable for *Daubert*.

purposes. *See Amorgianos*, 303 F.3d at 267 (“A minor flaw in an expert’s reasoning or a slight modification of an otherwise reliable method will not render an expert’s opinion *per se* inadmissible.”).

The same goes for Defendants’ assertion that Malanga’s investigation was unreliable because it “was necessarily hindered by Plaintiffs’ spoliation of evidence.” Dkt. 93 at 11-12. Setting aside the question whether Plaintiffs are indeed culpable for the stove’s absence—that is a question for the jury to decide at trial, *see Byrnies*, 243 F.3d at 110—Defendants fail to articulate how the absence of the stove rendered Malanga’s investigation methodologically unreliable for Rule 702 purposes, particularly when Malanga reviewed Joseph Ajala’s statements regarding the fire, examined photographs of the kitchen and PSGO can taken after the fire, and considered documentary evidence bearing on whether the stove had a standing pilot light.

Defendants do point out that non-party tenants had been occupying the apartment where the fire occurred for some time before Malanga visited the site. *See* Dkt. 93 at 12. But the same is true of the site visit performed by Defendants’ expert Long, who himself visited the apartment a year after the fire—long after the stove’s disappearance and after months of occupancy by non-party tenants—but whose investigation, Defendants must agree, was not rendered *unreliable* because of it.¹⁶ Defendants point to no confirmed or suspected changes to the fire site between Long’s investigation and Malanga’s that would render the latter’s findings fatally untrustworthy.¹⁷

In sum, the Court will not exclude Malanga’s opinions under Rule 702 on the ground that Malanga’s visit to the site was unduly delayed or impeded by spoliation. Defendants remain

¹⁶ Indeed, despite the stove’s absence, Long felt comfortable opining that the stove was the only possible cause of the fire—an opinion the Court has excluded but not because of spoliation or the timing of Long’s site visit.

¹⁷ The Court also notes that although the NFPA guide expresses a preference for commencing a fire investigation before fire-site changes can occur, *see, e.g.*, 2017 NFPA 921 § 17.3.1 (“Every attempt should be made to protect and preserve the fire scene as intact and undisturbed as possible . . .”), it does not bar an expert from opining on the cause of a fire merely because of such a change.

free, however, to cross-examine Malanga about the circumstances of his visit and their impact, if any, on the credibility of his investigation and findings. *See Amorgianos*, 303 F.3d at 267 (“[V]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” (citation omitted)).

E. Malanga’s Purported Failure to Consider Joseph Ajala’s Statements “Critically”

The Court rejects Defendants argument that Malanga’s opinions are inadmissible because “he admittedly arrived at them without engaging in the critical analysis of available contradictory data.” Dkt. 93 at 13-14. At bottom, Defendants assert that Malanga was unduly accepting of Joseph Ajala’s narrative of both the fire and the removal of the stove and that had Malanga “known about the factual dispute regarding the disposal of the stove, he might have considered it further as a potential source of ignition.” *Id.* at 13. But the Court has already made clear that the parties’ ongoing disagreement over the circumstances of the fire and the fate of Plaintiffs’ stove is not a basis for finding an expert witness’s opinions unreliable under *Daubert*. *See supra* Part I.B. And in any case, Defendants’ argument is based on a false premise: contrary to their characterization of Malanga’s report and testimony, Malanga did consider the possibility that the stove had a standing pilot light and did consider whether any such pilot light could have ignited the PSGO. *See* Dkt. 93 ex. 1 (Malanga report) at 18-19 (stating that although “the actual Stove that was in place at the time of the Incident was not equipped with any standing pilot light,” “such appliance would not be considered as a source of ignition” because of “the height difference between any even potential source of ignition and the low flying flammable vapors as well as the degree of enclosure”). His approach was wholly consistent with Defendants’

characterization of the NFPA 921 guide as requiring “that one consider all appliances as potential ignition sources,” Dkt. 93 at 13.¹⁸

F. Malanga’s Opinion That a Static-Electricity Discharge Caused the Fire

Finally, Malanga’s opinion that a discharge of static electricity caused the fire is reliable and admissible under Rule 702. The core of Defendants’ argument to exclude his opinion is that it “violates the NFPA 921 because he affirmatively concludes that a discharge of static electricity was the source of the ignition for the fire, even in the absence of any actual evidence of same.” Dkt. 93 at 14. Regardless of whether Malanga’s static-electricity theory is correct on its merits, it is not, as Defendants contend, devoid of evidentiary support beyond his conclusion that no other ignition source, including a standing pilot light in a stove, could possibly have caused the fire. Malanga based his conclusion that static electricity was the cause of the fire on, among other things, Joseph Ajala’s descriptions of his activities in the minutes before the fire, some of which could have contributed to accumulation of static charge; the relatively low humidity on the day of the incident; PSGO’s low MIE (at least as Malanga calculated it); and Joseph Ajala’s description of the fire as having occurred only two or three seconds after he poured the PSGO.

See Dkt. 93 ex. 1 at 19-24. Because Malanga based his causation theory on “the analysis of facts and logical inferences that flow from those facts,” 2017 NFPA 921 § 19.6.5, his theory does not run afoul of the NFPA 921 guide’s command that a fire investigator not “opine [on] a specific fire cause, ignition source, fuel or cause classification that has no evidence to support it” merely because “all other such hypothesized elements were eliminated,” *id.* § 19.6.5.1.¹⁹

¹⁸ Defendants remain free, of course, to cross-examine Malanga about the accuracy of the information he relied on in forming his opinions, including the accuracy of Joseph Ajala’s statements. *See Amorgianos*, 303 F.3d at 267.

¹⁹ The Court notes in this connection that contrary to Defendants’ assertion, Malanga did not “admit[] that he has no evidence of a static discharge,” *see* Dkt. 93 at 15, but rather stated that “static discharges do not generally leave any kind of evidence,” *see* Dkt. 93 ex. 2 at 156—referring, quite obviously, to *physical* evidence.

The NFPA 921 manual itself also refutes Defendants' implicit contention that a fire investigator violates the manual's methodology if he offers a cause determination that lacks *physical* evidence to support it. Indeed, the manual explicitly permits an investigator to conclude that static-electricity discharge is the cause of a fire even in the absence of "smoking gun" physical evidence—precisely because the existence of such evidence is so rare. *See* 2017 NFPA 921 § 9.12.7 ("Often, the investigation of possible static electric ignitions depends on the discovery and analysis of circumstantial evidence and the elimination of other ignition sources, rather than on physical evidence of arcing."); *id.* § 9.12.7.5 ("The location of the static electric arc should be determined as exactly as possible. In doing so, there is seldom any physical evidence of the actual discharge arc, if it occurred.").²⁰

Because Defendants have identified no inconsistency between Malanga's static-electricity theory and the NFPA 921 manual, and because the Court has no reason to conclude *sua sponte* that Malanga's theory is not the product of reliable methods reliably applied, his opinion is not inadmissible under Rule 702.

IV. Motion to Exclude Opinions of Plaintiffs' Chemist James E. Hanson

Turning finally to Defendants' motion to exclude the opinions of Plaintiffs' chemist James Hanson, the Court finds that the opinions contained in Hanson's report, *see* Dkt. 91 ex. C (Hanson's supplemental report), are inadmissible. Accordingly, Hanson is precluded from testifying at trial.

Although it excludes Hanson's opinions, the Court notes for the record that it finds—with one exception to be discussed below—that Hanson's opinions are relevant and would be helpful to the jury in understanding the evidence and determining facts in issue. The Court also finds

²⁰ Of course, whether the absence of such evidence undermines Malanga's opinion in this case is something Defendants may wish to probe on cross-examination.

that Hanson possesses the knowledge, skill, experience, training, and education necessary to offer expert testimony on the chemical properties of PSGO and its effectiveness as a paint remover—a finding Defendants do not contest. *See* Dkt. 93 ex. 4 at 16-20 (Hanson résumé). As will be discussed, however, the Court is not persuaded that Hanson’s expert qualifications extend to the field of fire investigation.

A. Hanson’s Opinion Regarding PSGO’s Effectiveness as a Paint Remover Compared with Other Products

Hanson’s opinion regarding PSGO’s effectiveness as a paint remover relative to other, less flammable products is the result of unreliable methods and is therefore inadmissible under Rule 702. The parties agree that sometime in 2015, Defendant W.M. Barr changed the formulation for Goof Off. *See* Dkt. 93 at 21-22; Dkt. 96 at 20. They also agree that the labeling on Joseph Ajala’s can of Goof Off was too damaged by the fire to determine whether the product was of the older or new formulation. *See* Dkt. 93 at 21-22; Dkt. 96 at 20. At deposition, Hanson testified that he tested PSGO’s effectiveness as a paint remover against other, less flammable products using only one formulation and he did not know which one he had used. *See* Dkt. 93 ex. 6 at 187-97. Upon realizing this mistake, however, he did not conduct new efficacy tests using verified samples of each formulation, either before he was pressed on this point at deposition, *id.* at 197, or after, *see* Dkt. 91 ex. C (Hanson’s supplemental report) at 15-19. Hanson did, however, conduct new tests of PSGO’s *conductivity* using both the old and new formulations and incorporated those results into a revised report. *See* Dkt. 91 ex. C at 11-13.

The Court is not persuaded that Hanson’s opinion regarding PSGO’s efficacy as a paint remover is the product of a reliable methodology reliably applied. At deposition, when asked whether the opinions in his initial report accounted for the differences between the two PSGO formulations, Hanson conceded that those differences were chemically significant in at least

some respects, including with respect to PSGO’s flammability. *See* Dkt. 93 ex. 6 at 105-06 (“Q: Am I correct in inferring from your report that your belief is that the 2012 formula of Goof Off Pro Strength was more flammable than the 2015 formula of Goof Off Pro Strength? . . . A: I think because ‘flammable’ is a sort of generic statement that covers several different aspects of a material, that it would have a—the second batch would have different flammability. It depends on the condition of whether that would be less or more. Q: Did you engage in that analysis at all for purposes of your report, the comparison of the two formulas? A: No.”). Indeed, Hanson evidently believed that the differences between the two formulations were sufficiently meaningful to warrant retesting to determine the conductivity of both formulations, and revised his report to reflect the new data. *See* Dkt. 91 ex. C at 11-13. But neither Hanson’s report nor his deposition testimony offers a reliable reason why the same would not be true with respect to his efficacy testing. Because Hanson’s methodology for testing PSGO’s efficacy is inconsistent with his methodology for testing PSGO’s conductivity, the Court finds the former methodology, and all opinions based upon it, to be unreliable. *See Amorgianos*, 303 F.3d at 268 (affirming rejection of industrial hygienist’s opinion under Rule 702 where expert “failed to apply his own methodology reliably”).

Plaintiffs assert that in moving to exclude Hanson’s efficacy opinion on reliability grounds, “Defendants provide no basis—whether an expert report, expert testimony, or other testimony or documentation—to suggest that the slight difference between these two formulas has any result on Goof Off Professional’s efficacy [as] a paint remover or the outcome of Hanson’s test.” Dkt. 96 at 20. True enough. But it is Plaintiffs’ burden to demonstrate the reliability of Hanson’s testing method, *see Williams*, 506 F.3d at 160, and requiring Defendants

to prove the unreliability of Hanson’s approach to efficacy testing would impermissibly turn that burden on its head.

The Court appreciates that both Plaintiffs’ chemist Hanson and Defendants’ chemist Myers attempted to minimize differences between the older and newer PSGO formulations when questioned about them at their depositions. *See* Dkt. 97 ex. Q (Myers deposition) at 113, 125-31, 145, 168-69; Dkt. 93 ex. 6 (Hanson deposition) at 102-09. That fact, however, does not explain the inconsistency between Hanson’s approach to measuring PSGO’s *conductivity*—which evidently required testing both formulations—and his approach to measuring PSGO’s *efficacy*—which apparently did not. Moreover, the fact remains that notwithstanding Myers’s efforts to explain his failure to account for the different PSGO formulations, he ultimately conducted all of his tests using both formulations of PSGO, *see* Dkt. 95 ex. 2 at 2-3, while Plaintiffs’ chemist Hanson, without explanation, did not.

Because Hanson’s opinion regarding PSGO’s efficacy as a paint remover is the result of an unreliable methodology, it is inadmissible under Rule 702.²¹

B. Hanson’s Opinion About PSGO’s Flammability, Including Its MIE and Flash Point

For the same reason, the Court excludes Hanson’s opinion that PSGO is “a very flammable mixture,” Dkt. 91 ex. C at 8, and that “by measures of flash point and minimum ignition energy, the mixture of acetone and xylene in Goof Off Pro is particularly hazardous,” *id.* at 20. As noted, Hanson reached his initial report’s conclusions regarding PSGO’s flammability without accounting for what he conceded are chemically significant differences between the two possible formulations implicated in the fire. *See* Dkt. 93 ex. 6 at 105-06 (“A: I think because

²¹ Because the Court excludes Hanson’s efficacy opinion on other grounds, it need not address Defendants’ lengthy argument that the opinion is irrelevant under Rule 702(a). *See* Dkt. 93 at 16-21.

‘flammable’ is a sort of generic statement that covers several different aspects of a material, that it would have a—the second batch would have different flammability. It depends on the condition of whether that would be less or more. Q: Did you engage in that analysis at all for purposes of your report, the comparison of the two formulas? A: No.”). It appears from Hanson’s revised report, however, that he did not re-conduct his analysis to include both formulae when he learned either could have been in Joseph Ajala’s can of Goof Off. *See* Dkt. 91 ex. C at 6-8. Indeed, the portion of the revised report setting forth Hanson’s flammability opinion affirmatively relies on Hanson’s initial but admittedly faulty assumption that the particular PSGO formulation Joseph Ajala attempted to use was determinable. *See id.* at 7 (“The formula that was identified as being used by Mr. Ajala contained 83% acetone and 17% xylene.”). Because neither Hanson’s report nor his deposition testimony provides any explanation for this contradiction—let alone a reliable one—the Court must exclude Hanson’s flammability opinion under Rule 702. This ruling extends to Hanson’s opinions regarding PSGO’s flash point and MIE, both of which were based on Hanson’s faulty supposition that he knew the formulation of the Goof Off Joseph Ajala attempted to use.²² *See id.* at 7-8.

C. Hanson’s Opinion That PSGO Is Not Reasonably Safe When Used as Directed
Because the Court excludes Hanson’s opinions regarding PSGO’s efficacy and flammability, the Court also excludes Hanson’s opinion that PSGO is not reasonably safe even when used as directed. Under New York law, a “reasonably safe” product is “one whose utility outweighs its risks when the product has been designed so that the risks are reduced to the

²² This ruling extends to Hanson’s opinion that environmental factors—particularly the high temperature of the kitchen—made Joseph Ajala’s PSGO more susceptible to ignition by low-energy ignition sources, such as a static-electricity discharge. *See* Dkt. 97 ex. C at 8-9. This opinion is expressly based on Hanson’s findings regarding PSGO’s MIE and flash point, *see id.* at 9 (“[E]ven a smaller 5 C increase from the flash point of 27 C to the temperature that day (90 F, 32 C) would decrease the MIE by a factor of 2 or more to less than 0.1 mJ.”), which are themselves unreliable.

greatest extent possible while retaining the product's inherent usefulness at an acceptable cost."

Voss v. Black & Decker Mfg. Co., 450 N.E.2d 204, 208 (N.Y. 1983). Thus, "the risks inherent in the product" and the product's "utility and cost" are at the heart of any inquiry into whether the product's design is reasonably safe. *Id.* Plaintiffs agree with that recitation of the relevant inquiry. *See* Dkt. 96 (Plaintiffs' Mem. in Opp.) at 17 ("[T]he feasibility of a safer alternative design is a factor in determining whether a product is reasonably safe. . . . Accordingly, in connection to Plaintiffs' design defect claims, Dr. Hanson conducted efficacy testing of Goof Off to compare its efficacy as a paint remover to that of safer and less flammable alternatives.").

Hanson's reasonable-safety opinion reflects this principle: it is based both on Hanson's opinion that PSGO is highly flammable and his opinion that other, nonflammable products are as effective as PSGO in removing latex paint. *See* Dkt. 97 ex. C at 20 ("In summary, the Goof Off Pro product is extremely hazardous, and is not safe to use even following the directions. Other products exist—including other products from the same company—that are as effective as the Goof Off Pro, but do not have the extreme flammability hazard found with the Goof Off Pro."). And because, as resolved above, each of those opinions is the product of an unreliable methodology and is inadmissible under Rule 702, Hanson's reasonable-safety opinion must be excluded under that rule as well. *See Amorgianos*, 303 F.3d at 267 ("To warrant admissibility, . . . it is critical that an expert's analysis be reliable at every step.").

Therefore, Hanson may not testify that PSGO is not a reasonably safe product.

D. Hanson's Static-Electricity Opinions

The Court next considers Hanson's opinion that a static-electricity discharge caused the fire. This opinion is bound up inextricably with Hanson's conclusions regarding PSGO's MIE and flash point—conclusions that the Court has already found inadmissible under Rule 702. *See*,

e.g., Dkt. 97 ex. C at 8-9 (“At a temperature of 90 F, both components of Goof Off Pro are above their flash points. . . . [E]ven a smaller 5 C increase from the flash point of 27 C to the temperature that day (90 F, 32 C) would decrease the MIE by a factor of 2 or more to less than 0.1 mJ.”); *id.* at 9-14 (“The static charge that can accumulate on the human body can provide up to 25 mJ when discharged, which is more than sufficient to provide the ignition spark: a spark with 100 times less energy can ignite xylene vapor.”). On that basis alone, Hanson’s opinion is inadmissible under Rule 702, because his analysis is not reliable at every step.

In addition, however, the Court is not satisfied that Hanson possesses the knowledge, skill, experience, training, or education to opine on the cause of the fire, even if he is qualified to testify regarding PSGO’s chemical properties, including its flammability. Hanson’s résumé (*see* Dkt. 93 ex. 4 at 16-20; *see also id.* at 3-4) discloses no education, training, experience, or research relating to the investigation of fires, let alone the kind of professional credentials that would ordinarily be necessary to qualify a witness to opine on a fire’s cause. *See, e.g., Roman v. Sprint Nextel Corp.*, No. 12-CV-276, 2014 WL 5870743, at *3-4 (S.D.N.Y. Nov. 13, 2014). When pressed at his deposition for what aspects of his professional background qualified him to offer his views on the cause and origin of the fire, Hanson could offer none. *See* Dkt. 93 ex. 6 at 50-52 (“Q: Okay. Am I correct you don’t have any kind of a fire investigation certification? . . . A: No. . . . Q: Okay. You’re not a chemical engineer? . . . A: No.”). Plaintiffs’ brief in opposition to Defendants’ motion to exclude Hanson’s testimony fares no better: Plaintiffs assert, without additional explanation, that Hanson “approached the ignition of the Goof Off Professional at issue from the perspective of a chemist, making use of his experience and training in that area” Dkt. 96 at 21. That is, of course, precisely the problem with

Hanson's opinion regarding the fire's cause: there is nothing about Hanson's experience, training, or "perspective" as a chemist that qualifies him to offer it.

Contrary to Plaintiffs' argument, *see* Dkt. 96 at 21, *Dyvex Industries, Inc. v. Agilex Flavors & Fragrances, Inc.*, No. 12-CV-0979, 2018 WL 1428232, at *10-13 (M.D. Penn. Mar. 22, 2018), does not help them. In *Dyvex*, the district court admitted the opinions of a party's mechanical engineer regarding the cause of a fire that originated within a "kneader" machine used to extrude fragrant oils from raw materials. The engineer admitted that he lacked any certification or experience in fire investigations generally. *See id.* at *10. His résumé and deposition testimony, however, revealed that he had deep expertise in the design and operation of extrusion machines like the one at issue; had written his doctoral dissertation on these topics; and had "experience with fires originating in extruder machines when processing other materials." *Id.* at *11. The court therefore found him "very qualified regarding kneader machines," including fires originating therein. *Id.* at *13. The same cannot be said of Hanson with respect to this fire. Unlike the mechanical engineer in *Dyvex*, who had experience with fires originating within kneader machines, Hanson possesses no knowledge, experience, training, or certifications relating to fire investigations, let alone to the determination of a fire's cause and origin.

Thus, Hanson may not offer his opinion that a discharge of static-electricity caused the fire.²³

²³ Hanson is also barred from opining that it is *possible* for a static-electricity discharge to ignite PSGO under the right circumstances. *See* Dkt. 93 ex. 4 (Hanson revised report) at 9-14 ("Even taking reasonable care to remove ignition sources . . . , static discharge [remains] as an ignition source. . . . [T]he very low MIE of xylene means that even humanly imperceptible sparks (less than 0.5 mJ) can ignite the vapors."). That opinion is expressly based on Hanson's findings regarding PSGO's MIE and flash point, which have been excluded as unreliable.

Because the Court excludes Hanson's static-electricity theory on other grounds, the Court need not address Defendants' separate arguments that it is inadmissible because (1) Hanson did not follow the NFPA 921 guide's methodology for investigating fires in formulating the theory, Dkt. 93 at 22-23; (2) his theory lacks supporting physical evidence, *id.*; (3) his theory is improperly duplicative of Joseph Malanga's causation theory, *see* Dkt. 98 at 9-10; and (4) Hanson improperly relied on unreliable portions of Malanga's report, *id.*

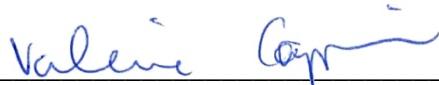
CONCLUSION

For the foregoing reasons, Plaintiffs' motion to exclude the opinions of Defendants' expert R. Thomas Long [Dkt. 86] is GRANTED IN PART and DENIED IN PART. Plaintiffs' motion to exclude certain opinions of Defendants' expert Timothy J. Myers [Dkt. 89] is DENIED. Defendants' motion to exclude the opinions of Plaintiffs' experts Robert Malanga and James E. Hanson [Dkt. 92] is GRANTED IN PART and DENIED IN PART. The Clerk of Court is respectfully directed to close docket entries 86, 89, and 92.

The Court will now set a trial schedule. Jury selection and trial will begin on **June 10, 2019, at 10:00 a.m.** Any remaining motions in limine must be filed no later than **March 2, 2019**, with responses due **March 16, 2019**. No replies in support of motions in limine will be permitted. A joint pre-trial order, requests to charge, and proposed voir dire questions must be filed no later than **May 10, 2019**. The parties are directed to the Court's Individual Practices for the required contents of their joint pretrial order and are reminded that requested voir-dire questions should be focused specifically on the facts of this case. The parties must appear for a final pre-trial conference on **May 30, 2019 at 2:00 p.m.** If the parties believe it would be productive to have a settlement conference with their assigned Magistrate Judge, they should promptly jointly request a referral for a settlement conference.

SO ORDERED.

Date: December 3, 2018
New York, New York


VALERIE CAPRONI
United States District Judge